STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
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Office of Preparedness & Response
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September 14, 2007
Public Health & Emergency Preparedness Bulletin: # 2007:36
Reporting for the week ending 09/08/07 (MMWR Week #36)

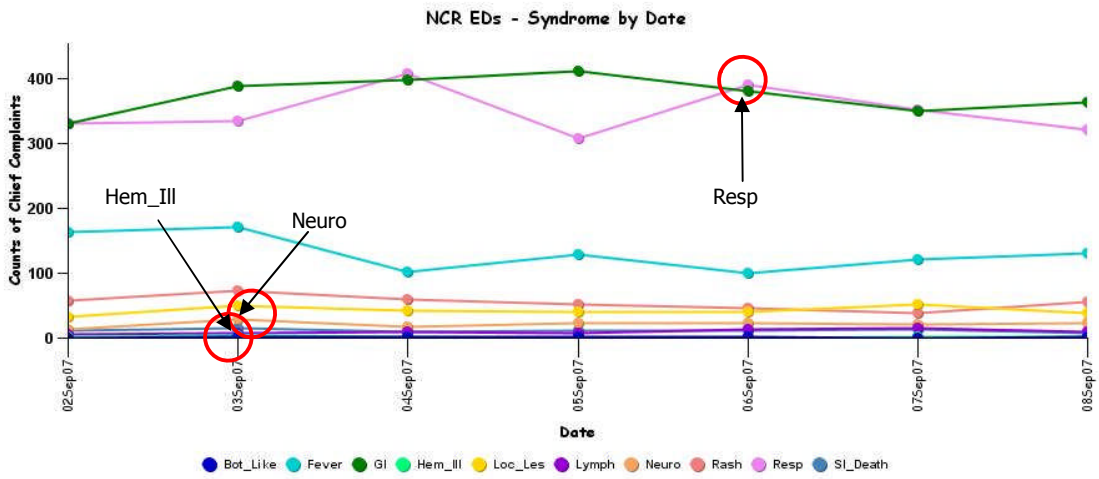
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

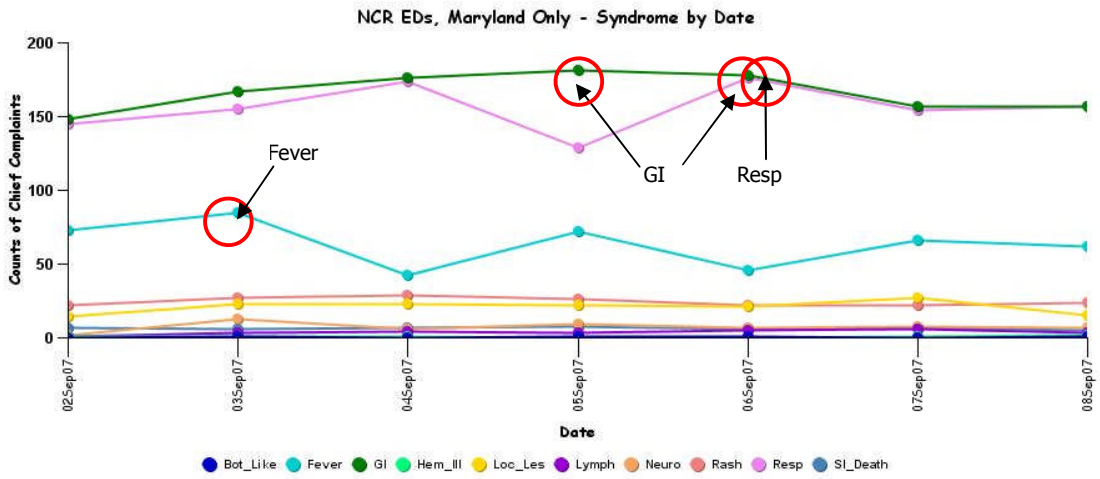
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts only. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

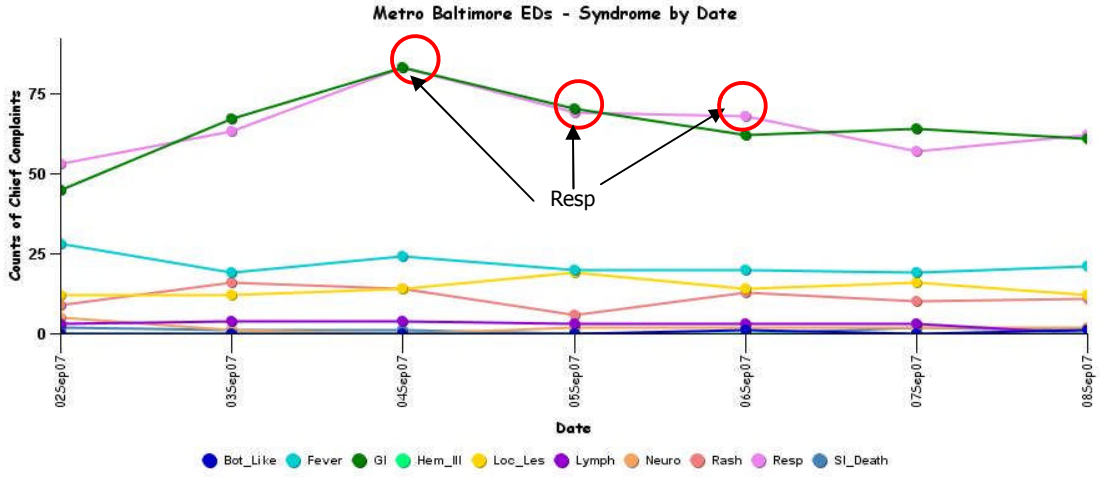
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system

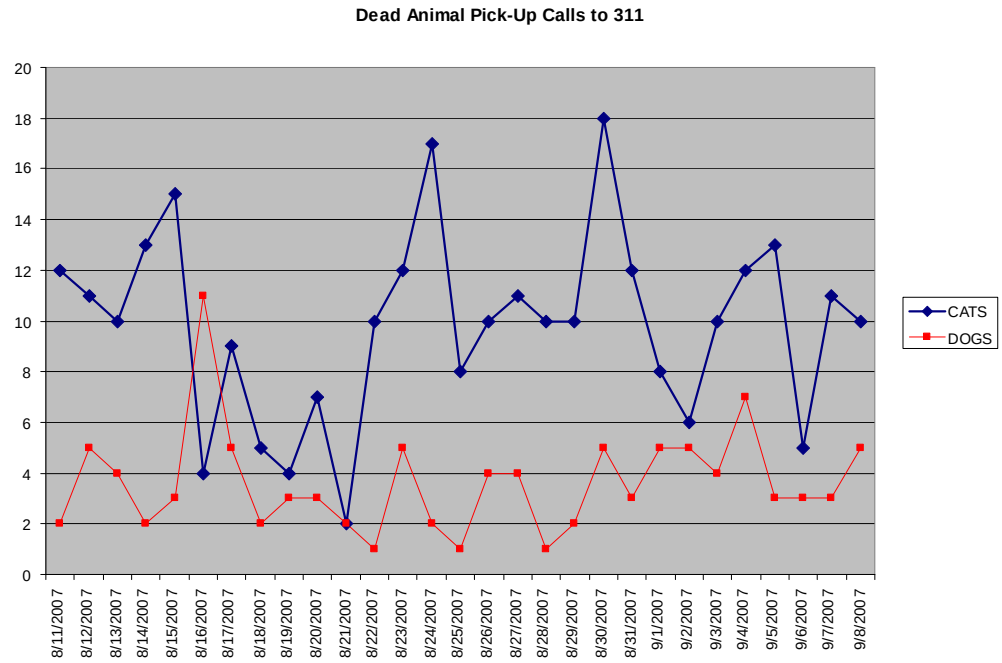


* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system



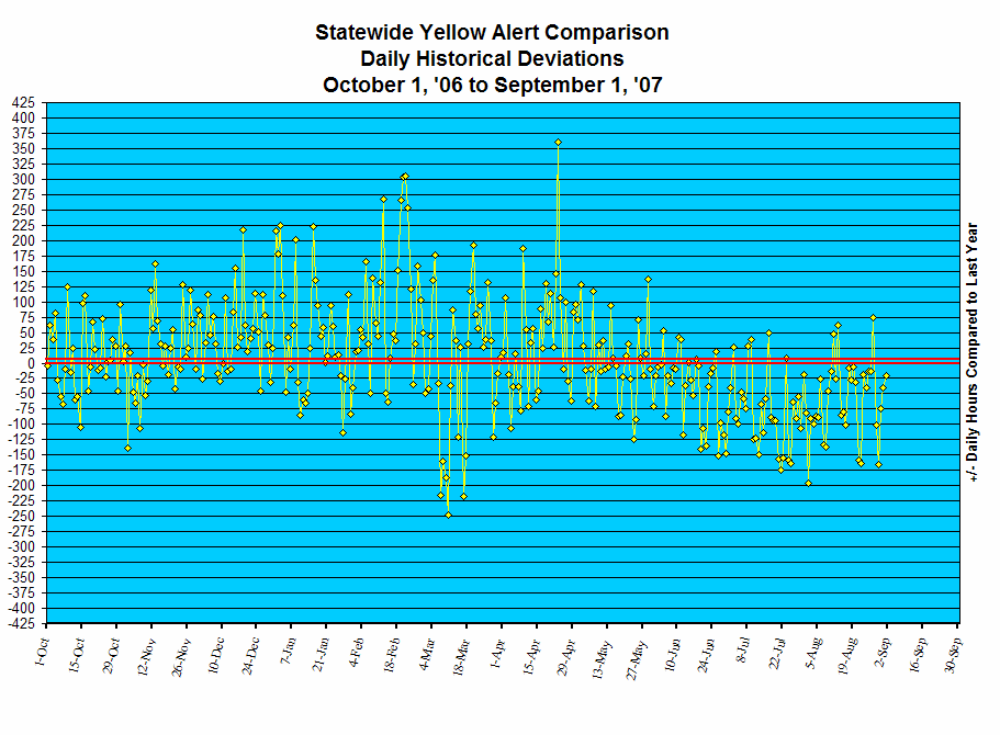
* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/06.



REVIEW OF MORTALITY REPORTS

OCME: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in August 2007 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases:	16	1
Prior week:	26	0
Week#36, 2006:	8	0

OUTBREAKS: 5 outbreaks were reported to DHMH during MMWR Week 36 (Sep. 2- Sep. 8, 2007):

2 Gastroenteritis outbreaks
1 outbreak of GASTROENTERITIS associated with a Nursing Home
1 outbreak of GASTROENTERITIS/GIARDIASIS associated with a Daycare

2 Foodborne Gastroenteritis outbreaks
1 outbreak of FOODBORNE GASTROENTERITIS associated with a Restaurant
1 outbreak of FOODBORNE GASTROENTERITIS associated with a Private Home

1 Rash illness outbreak
1 outbreak of SCABIES associated with a Nursing Home

MARYLAND SEASONAL FLU STATUS:

Seasonal Influenza reporting occurs October through May. One case of influenza was reported to DHMH during MMWR Week 36 (September 2 - 8, 2007).

***Please note:** Influenza data reported to DHMH through the National Electronic Disease Surveillance System (NEDSS) is provisional and subject to further review.

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

US Pandemic Influenza Stage: Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/flu.htm

WHO update: As of August 31, 2007, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 327, of which 199 have been fatal. Thus, the case fatality rate for human H5N1 is about 61%.

AVIAN INFLUENZA, MIGRATORY BIRDS (Egypt): 2 Sep 2007, The H7 strain of the bird flu virus has been detected in Egypt for the first time. A total of 9 migrant birds, all of them ducks, tested positive for the virus when 6432 samples

were taken from the approximately one million birds that annually migrate over Al-Manzalah Lake in the Sharqiya governorate from central and eastern Europe. The recently identified H7 strain is thought to pose little risk, certainly in comparison with the virulent H5N1 strain of the virus. The H7 strain samples are now being tested at both the Ministry of Health and Population (MOHP) and Naval Medical Research Unit (NAMRU) laboratories in order to determine the N subtype. Avian influenza has 16 H & 9 N subtypes. Only viruses of the H5 and H7 subtypes comprise the pathogenic form of the disease, though not all H5 and H7 subtypes cause severe disease in poultry. Abdel-Rahman Shahin, spokesman at the MOHP, explains that the H5 and H7 viruses are usually introduced to poultry in a low pathogenic form. It is only after several months that they mutate into highly pathogenic strains. The appearance of the H7 strain is therefore a cause for concern. The virus has been known to infect humans but is less virulent than the H5N1 strain. Shahin also warned that Egypt must remain alert for yet other strains of the virus given that it lies on major bird migration routes.

AVIAN INFLUENZA, HUMAN (Viet Nam): 6 Sep 2007, On Aug 31, the World Health Organization (WHO) recognized 5 human H5N1 influenza cases from Viet Nam dating back to late May 2007, after publishing formal criteria for accepting positive test results for H5 flu viruses from national laboratories. The 5 cases include 4 fatal ones, which pushes Viet Nam's H5N1 toll to 100 cases with 46 deaths. The country has the second highest number of avian flu cases, after Indonesia. The 5 cases now confirmed by the WHO had been reported earlier by Vietnamese authorities. The WHO apparently now has confirmed all the cases announced by Vietnamese authorities this year. In a statement about new criteria for accepting positive H5N1 findings, the WHO said it will now accept positive polymerase chain reaction (PCR) results from national reference laboratories that (1) have participated successfully in the WHO's new External Quality Assessment (EQA) project and (2) have accurately identified H5 flu viruses in at least 3 previous cases. Most countries that have had human H5N1 cases have had to send specimens to WHO reference labs elsewhere for testing and confirmation. However, the WHO has accepted positive H5N1 results from a few countries, such as China and, in recent months, Indonesia.

AVIAN INFLUENZA, HUMAN (Indonesia): 7 Sep 2007, A 33-year-old Indonesian man from Sumatra island died of bird flu on Sep 6, bringing the death toll in the world's worst-affected nation to 85 and the global toll to 200, health officials said. A health ministry official earlier confirmed that the man, a plantation worker, was infected with the deadly H5N1 virus, after 2 tests came back positive. Azizman Daad, the doctor treating the man, said it was not clear whether the man had come into contact with infected poultry, but he had bought 2 live chickens at a local market. The patient was taken to hospital in Pekanbaru on Sep 1 and transferred on Monday to the general state hospital, the facility designated by the government to treat bird flu patients in the region. Separately, 2 children and an adult on the island of Bali were being treated as suspected carriers of the virus, said Putu Andrika, from the bird flu team at Sanglah general hospital in the capital Denpasar. "They are not in critical condition," Andrika said. Tests were being carried out to confirm whether they were infected, he added. The island has reported 2 bird flu deaths in the past month, triggering fears of an impact on the tourism industry as it recovers in the wake of deadly bombings carried out by Islamic extremists in 2002 and 2005.

NATIONAL DISEASE REPORTS:

ANTHRAX, ANIMAL SKIN (Connecticut): 6 Sep 2007, Two people in Danbury have been infected with anthrax contracted from animal skins. According to officials, two city residents contracted cutaneous anthrax- a form of anthrax that develops under the skin- last month after working with imported animal hides used to make African drums. The state Department of Public Health made the diagnosis official Tuesday. After learning Tuesday the two people had tested positive for anthrax, Boughton said the city informed the state police and the FBI. They are reportedly the first cases of cutaneous anthrax in the state in almost 40 years. That news forced the city to reroute traffic throughout most of the day, as city, state and federal officials investigated the matter and removed hides from a barn used as a workshop. An emergency response team from the state Department of Environmental Protection was preparing to enter the property late Wednesday to take samples from inside the house, from a shed and from the soil. "If there is serious contamination outside the shed, that will be a longer process, possibly a matter of several days," said Mike Nalipinksi of the federal Environmental Protection Agency. But that was a worst-case scenario, he said, and officials last night played down the possibility. "We've erred on the side of safety and caution," Danbury Mayor Mark Boughton said. Health officials say cutaneous anthrax is not contagious and can usually be treated with antibiotics. Both people are out of the hospital and expected to make a full recovery. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS:

CHIKUNGUNYA, CONFIRMED (Italy): 3 Sep 2007, The laboratory of the Istituto Superiore di Sanit E0-ISS (Superior Institute of Health), the leading technical and scientific public body of the Italian National Health Service, has confirmed that the blood samples, taken from patients in the small city of Castiglione (province in Ravenna, Italy), have resulted positive for the mosquito-borne chikungunya fever virus. The recent outbreak of the disease involved more than 150 people since mid July 2007. Meanwhile other clinical cases are emerging in neighboring places. Castiglione is a few

kilometers south south-east of Ravenna, in Emilia Romagna Region, Italy. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

CHOLERA (Iraq): 4 Sep 2007, Since Aug 23, a 3 to 4 fold increase of acute watery diarrhea cases were being reported from one of the teaching hospitals of Sulaymaniyah province in Northern Iraq. Laboratory tests performed on stool specimens confirmed Vibrio cholerae serogroup O1 biotype Inaba as the causative pathogen for these reported acute watery diarrhea cases. So far between Aug 23 and Sep 2, the cumulative number of cases of acute watery diarrhea reported from 4 out of 11 districts of Sulaymaniyah province stands at 2930 including 9 deaths with an overall case fatality rate of 0.30 percent. Of these reported cases, Vibrio cholerae has been laboratory confirmed in 187 stool samples. As of Sep 1, the outbreak, since reported on Aug 23, has spread to 4 out of 11 districts in the province, exposing over 1,502,000 people at great public health risk. No surveillance system for diarrheal diseases existed in the province before the outbreak started. Only recently with support from the WHO Office of Iraq, the provincial health authority has started collecting surveillance data on cases reported to the health centers and hospitals. Therefore, due to inadequacy of reporting and other limitations of the surveillance system, the cumulative number of cases of cholera reported so far from the province may be grossly underreported and may not represent the true burden of the disease. Given the data that are available, it clearly shows that the transmission is still continuing and likely to spread to other adjoining districts and the risk of exposure would prevail unless the control measures can specifically target areas, which remain within the epicenter of this current outbreak. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA, SUSPECTED (India): 4 Sep 2007, With 8 more cases reported on Sep 2, the number of chikungunya cases in Mugpal Kelasahi village in Jaipur district has reached 91. Over 50 affected persons are still undergoing treatment in various hospitals. However, no deaths have been reported so far. On Sep 1, a team of doctors rushed to the village to collect the blood sample of those affected. The samples have been sent to Indian Council of Medical Research, Bhubaneswar for examination. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

SHIGELLOSIS, THAI BABY CORN (Denmark): 4 Sep 2007, On Aug 16, the Danish regional food authority (Fodevareregion Ost) and the Statens Serum Institut (SSI) became aware of an outbreak of Shigella sonnei infections. The first cases to be reported were employees of 2 companies. They had eaten a variety of vegetables, including raw baby corn and sugar snaps in their workplace canteens. Preliminary interviews with further cases indicated that the probable source was imported baby corn or sugar snaps that had been distributed at the beginning of August 2007. The suspected foods were distributed by a wholesaler to green grocers, catering firms, restaurants, and shops throughout the country. Due to the strong suspicion about these food vehicles, the Veterinary and Food Administration issued a recall of baby corn and sugar snaps on Aug 17. Furthermore, the SSI undertook investigations to determine the extent of the outbreak and its source. The available epidemiological and food trace-back evidence strongly supported the finding that baby corn imported from Thailand was the source of the outbreak. Microbiological examination of the suspected batches of imported baby corn has detected high levels of E. coli, indicating fecal contamination. Additionally Salmonella have been found in 2 batches. Shigella has so far not been detected, but analyses are still ongoing. An Early Warning Response System report was issued on Aug 18. The available information suggests that the outbreak is confined to Denmark but we encourage other countries to be aware of potential clusters of S. sonnei cases. Due to the long shelf life of baby corn (3 weeks), the interventions made to trace the source of infection and to recall the product are likely to have prevented additional cases of illness. Although shigellosis does occur in Denmark and small outbreaks are occasionally seen, most cases are travel-related. The last large S. sonnei outbreak in Denmark was in 1998, also associated with eating raw baby corn imported from Thailand. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, BOVINE (Russia): 5 Sep 2007, A slaughtered 1.5-year-old animal has been preliminarily diagnosed with anthrax in the settlement Kiren in the Tanukin region of Buryatia. The final diagnosis will be available in 10 days, as the biological tests are finalized. Preventive measures are being taken in the settlement. The slaughterhouse is fenced and the land is disinfected. Veterinary doctors control the animals in the 3 neighboring streets. All the people who could get infected are being followed up. There are no new cases as of Sep 3. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, WILDLIFE, SUSPECTED (Botswana): 5 Sep 2007, The Department of Wildlife and National Parks in Kasane is investigating a possible outbreak of anthrax in the Chobe region. This comes after several wild animals died mysteriously. A report from the department indicates that 7 elephants, 2 giraffes, a buffalo, antelope and a Zebra were found dead under mysterious circumstances. The department assistant director of research, Dr. Cyril Taolo, said they have since taken some samples from the animal carcass and are investigating if there are any cases of anthrax. "We have assigned some of our officers to investigate if the animals could have died from anthrax," he said. He said the investigation started last week and they are due to be completed this week (Sep 3–7). (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CHOLERA (India): 7 Sep 2007, The death toll from an outbreak of cholera and other waterborne intestinal diseases in eastern India rose to 197 on Sep 7, with thousands of people still being treated, officials said. Most of the deaths have been reported in 3 districts some 500 kilometers southwest of impoverished Orissa state's capital, Bhubaneswar, with Koraput district the worst hit. "So far, 85 people have died due to cholera and other acute water- and food-borne

intestinal infections in Koraput," the town's top medical official Rama Chandra Agarwal said, adding that more emergency treatment centers had been opened. In the adjacent Rayagada district 83 deaths have been reported, while another 29 died in Kalahandi. But health activists and opposition parties dispute the official figures, saying the real toll is much higher. "At least 500 people have died since the outbreak of cholera. It's surprising that the Orissa government still refuses to call it an epidemic," Communist Party of India leader AB Bardhan told a news conference on Sep 6. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, SUSPECTED (India): 7 Sep 2007, A suspected anthrax case was detected in Jammayyapeta village of Bhogapuram mandal in Vizianagaram district on Sep 5. A doctor from Tagarapuvalasa in Visakhapatnam district, NL Rao, claimed that a shepherd's son, age 15, has been suffering from anthrax for 5 days. The case was clinically confirmed; however, laboratory confirmation is yet to be done. The patient was diagnosed for anthrax when he came to Rao for treatment. He was referred to King George Hospital in Visakhapatnam. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

*Cases and outbreaks will be cited for suspect level with regards to suspicion of BT threat. Therefore, cases and outbreaks will be categorized as "Determined BT", "Suspect" or "Non-suspect".

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://bioterrorism.dhmh.state.md.us/

Personal protective equipment and antiviral drug use during hospitalization for suspected avian or pandemic influenza. Emerg Infect Dis. 2007 Oct; [Epub ahead of print].
This article describes a simulation study that attempted to estimate the resource needs of a hospital in the first few hours of management of a single patient seeking treatment with possible avian or pandemic influenza.

FDA Approves Second-Generation Smallpox Vaccine.
This news release by the U.S. Food and Drug Administration announces its approval of a new vaccine to protect against smallpox.

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information is a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

Questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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